



Please amend the claims as follows:

Listing of claims:

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (previously presented) A system for synchronizing voice signal received via a public switched telephone network (PSTN) and data signal received via a digital subscriber line (DSL), the system comprising:

a PSTN interface coupled to transmit and receive the voice signal;

a data DSL transceiver coupled to modulate and demodulate the data signal;

a synchronization circuit coupled to synchronize said voice signal and said data signal; and

a converter circuit coupled to convert the synchronized voice signal and the synchronized data signal between analog and digital formats, wherein said synchronization circuit synchronizes said voice signal with said data signal, and comprises:

a phase offset detection circuit coupled to detect a phase difference between

a PSTN clock associated with said voice signal and a DSL clock associated with said data signal;

a phase interpolation circuit coupled to adjust said voice signal according to the detected phase difference; and

a multiplexer circuit coupled to multiplex said data signal with the adjusted voice signal for transmission.

7. (previously presented) A system for synchronizing voice signal received via a public switched telephone network (PSTN) and data signal received via a digital subscriber line (DSL), the system comprising:

- a PSTN interface coupled to transmit and receive the voice signal;
- a data DSL transceiver coupled to modulate and demodulate the data signal;
- a synchronization circuit coupled to synchronize said voice signal and said data signal; and
- a converter circuit coupled to convert the synchronized voice signal and the synchronized data signal between analog and digital formats, wherein said synchronization circuit synchronizes said voice signal with said data signal and comprises:
  - a phase offset detection circuit coupled to detect a phase difference between a PSTN clock associated with said voice signal and a DSL clock associated with said data signal;
  - a demultiplexer circuit coupled to demultiplex said voice signal and said data signal from a received signal; and
  - a phase interpolation circuit coupled to adjust said voice signal according to the detected phase difference.

8. (canceled)

9. (canceled)

10. (currently amended) A method of synchronizing a public switched telephone network (PSTN) voice signal and a digital subscriber line (DSL) data signal, the method comprising the

steps of:

using a phase offset detector to track a phase offset between a master clock associated with a DSL transceiver at nominally 8 kHz and a PSTN clock at  $(8 + \delta)$  kHz;  
~~determining a phase offset between the voice signal and the data signal; and~~  
using the phase offset to re-generate samples passing through a phase interpolation block at new phases corresponding to that of an the PSTN clock.

11. (previously presented) The system of claim 6 further comprising:  
circuitry adapted to combine the voice signal and the data signal.

12. (previously presented) The system of claim 11 further comprising:  
a converter circuit coupled to convert the combined voice and data signals between analog and digital formats.

13. (previously presented) The system of claim 7 further comprising:  
circuitry adapted to combine the voice signal and the data signal.

14. (previously presented) The system of claim 13 further comprising:  
a converter circuit coupled to convert the combined voice and data signals between analog and digital formats.